

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE
BOARD OF PATENT APPEALS AND INTERFERENCES**

APPLICANT(S): KANG, Min-Jeong et al.

GROUP ART UNIT: 2629

APPLICATION NO.: 10/716,124

EXAMINER: NGUYEN, Kimnhung T.

FILING DATE: November 18, 2003

DOCKET: 678-1104 (P10576)

DATE: April 4, 2008

FOR: PEN INPUT METHOD AND DEVICE FOR PEN COMPUTING SYSTEM

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

APPELLANTS' BRIEF ON APPEAL

REAL PARTY IN INTEREST

The real party in interest is Samsung Electronics Co, Ltd, the assignee of the subject application, having an office at 416, Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea.

RELATED APPEALS AND INTERFERENCES

To the best of Appellants' knowledge and belief, there are no currently pending related appeals, interferences or judicial proceedings.

STATUS OF CLAIMS

Original Claims 1-16 were filed on November 18, 2003. Claims 1 and 10 were amended in

an Amendment filed on February 28, 2007. Thus, Claims 1-16 are pending in the Appeal. Claims 1 and 10 are in independent form. For the purposes of this Appeal, Claims 1-9 stand or fall together and Claims 10-16 stand or fall together. Claims 9 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

STATUS OF AMENDMENTS

Thus, the Appendix to this Appeal Brief includes Claims 1 and 10, of which the status is indicated as “Previously Presented”; and Claims 2-9 and 11-16, of which the status is indicated as “Original”.

SUMMARY OF CLAIMED SUBJECT MATTER

The invention as recited in Claim 1 relates to a pen input device. (Specification, at page 8, lines 4 to page 10, line 22; FIG. 1)¹. The device includes a touch screen panel for receiving a pen input from a user and displaying input data corresponding to the received pen input (Specification, at page 8, lines 8-15; FIG. 1). The device further includes an entry field generating portion for generating at least one entry field based on a boundary line of an entry frame drawn by the user (Specification, at page 9, lines 1-19; FIG. 1). The device further includes a controller for resizing the entry field to be suitable for the input data’s size whenever input data is input to the generated entry field (Specification, at page 9, line 1 to page 10, line 19; FIG. 1). The device further includes a memory unit for storing recognition information related to the entry field and the input data (Specification, at page 10, lines 20-22; FIG. 1).

The invention as recited in Claim 10 relates to a pen input method (Specification, at page 10, line 23 to page 12, line 20). The method includes displaying an entry frame drawn by a user through a pen input on a touch screen panel (Specification, at page 10, line 2 to page 11, line 11). The method further includes detecting a boundary line of the entry frame, setting an entry field based on

¹ Although a citation for each feature of the claims is provided herein, Appellants do not concede the fact that support may be found elsewhere in the written description.

the detected boundary line, and generating a virtual cell corresponding to the entry field for entering data (Specification, at page 11, lines 5-21). The method further includes modifying the virtual cell's size in real time in response to entry data into the virtual cell (Specification, at page 11, line 22 to page 12, line 12). The method further includes, when the entry of the data into the virtual cell is completed, resizing the entry field to be suitable for the entry of the data's size (Specification, at page 12, lines 13-20).

GROUND FOR REJECTION TO BE REVIEWED ON APPEAL

Whether Claims 1-8, 10-13, and 15-16 under 35 U.S.C. §103(a) are rendered obvious over U.S. Patent 5,850,477 (Takada) in view of U.S. Patent 5,956,034 (Sachs et al.).

ARGUMENT

1. Independent Claim 1 is patentable over Takada and Sachs et al.

Independent Claim 1 was rejected as being obvious over Takada in view of Sachs et al.²

The invention as recited in Claim 1 relates to a pen input device. The device includes a touch screen panel for receiving a pen input from a user and displaying input data corresponding to the received pen input. The device further includes an entry field generating portion for generating at least one entry field based on a boundary line of an entry frame drawn by the user. The device further includes a controller for resizing the entry field to be suitable for the input data's size whenever input data is input to the generated entry field. The device further includes a memory unit for storing recognition information related to the entry field and the input data.

Takada discloses an input and display apparatus for handwritten characters capable of freely editing input handwritten characters.³

Sachs et al. discloses an electronic publication publishing and distribution system for

² See Office Action dated November 14, 2007, at pages 2-3.

³ See Takada, at title and abstract.

dissemination of written materials that can be read on a portable electronic book.⁴

1A. The combination of Takada and Sachs et al. does not teach or disclose a controller for resizing the entry field to be suitable for the input data's size whenever input data is input to the generated entry field, and therefore Takada in view of Sachs et al. cannot render Claim 1 unpatentable

Claim 1 recites, in part, a controller for resizing the entry field to be suitable for the input data's size whenever input data is input to the generated field. The Examiner relies on Sachs et al. for rejecting these features.⁵

FIG. 4 and the Specification of the present application clearly disclose this feature described in Claim 1. FIG. 4 shows entry fields 16a, 16p, and 16q. The input data "Smith, Fred", "100", and "6.50", are input to the touch panel on areas that are larger than their respective entry fields. In response to the input data, entry fields 16a, 16q, and 16p are resized to accommodate the size of the input text (Specification, at page 12, lines 3-12).

After a thorough review of Sachs et al., Applicants find no support for the rejection. Sachs et al. does not teach or disclose resizing the entry field.

The Examiner states, "Sachs et al. discloses in fig. 3B, a touch-sensitive display screen comprises a resizing the entry field to be suitable for the input data's size whenever input data is input to the generated entry field (see the size of the font on text 110 is displayed [sic] and can then be enlarged or reduced [sic], see col. 6, lines 8-22)."⁶ This statement by the Examiner clearly affirms that Sachs et al. discloses resizing the font of the text instead of resizing an entry field.

Further, Sachs et al. discloses a different condition for the resizing operation. Sachs et al. states "In this case, the 'change font' icon 122 may be selected so as to change the current font size to the next font size." (Sachs et al., column 6, lines 12-14). According to Sachs et al., resizing occurs not upon input of text data, but upon selection of the icon 122, which are two distinct operations.

The Examiner provides no further support for rejecting this claim limitation.

Accordingly, Sachs et al. does not teach or suggest a controller for resizing the entry field to

⁴ See Sachs et al., at title and abstract.

⁵ See Office Action dated November 14, 2007, at page 3.

⁶ See Office Action dated November 14, 2007, at page 3.

be suitable for the input data's size whenever input data is input to the generated field, as recited by Claim 1. Takada does not cure the deficiencies of Sachs et al.

Since the combination of Takada in view of Sachs et al. does not teach or disclose the recitation of Claim 1 of the present application, a controller for resizing the entry field to be suitable for the input data's size whenever input data is input to the generated field, Claim 1 cannot be rendered obvious over Takada in view of Sachs et al.

Based on at least the foregoing it is respectfully submitted that the rejection of Claim 1 under 35 U.S.C. §103(a) must be reversed.

1B. Independent Claim 1 is not rendered obvious by Takada in view of Sachs et al.

The Examiner has failed to show that each and every element of Claim 1, and in as complete detail as is contained therein, are taught in or suggested by the prior art. The Examiner has failed to make out a prima facie case for an obviousness rejection, and thus Claim 1 is allowable.

1C. Dependent Claims 2-8 are patentable over Takada in view of Sachs et al.

Without conceding the patentability per se of dependent Claims 2-8, these claims are likewise believed to be allowable by virtue of at least their dependence on Claim 1.

2. Independent Claim 10 is patentable over Takada in view of Sachs et al.

Independent Claim 10 was rejected as being obvious over Takada in view of Sachs et al.⁷

The invention as recited in Claim 10 relates to a pen input method. The method includes displaying an entry frame drawn by a user through a pen input on a touch screen panel. The method further includes detecting a boundary line of the entry frame, setting an entry field based on the detected boundary line, and generating a virtual cell corresponding to the entry field for entering data. The method further includes modifying the virtual cell's size in real time in response to entry data into the virtual. The method further includes, when the entry of the data into the virtual cell is completed, resizing the entry field to be suitable for the entry of the data's size.

Takada discloses an input and display apparatus for handwritten characters capable of freely

⁷ See Office Action dated November 14, 2007, at pages 5-6.

editing input handwritten characters.⁸

Sachs et al. discloses an electronic publication publishing and distribution system for dissemination of written materials that can be read on a portable electronic book.⁹

2A. The combination of Takada and Sachs et al. does not teach or disclose when the entry of the data into the virtual cell is completed, resizing the entry field to be suitable for the entry of the data's size, and therefore Takada in view of Sachs et al. cannot render Claim 10 unpatentable

Claim 10 recites, in part, when the entry of the data into the virtual cell is completed, resizing the entry field to be suitable for the entry of the data's size. The Examiner relies on Sachs et al. for rejecting these features.¹⁰

FIG. 4 and the Specification of the present application clearly disclose this feature described in Claim 1. FIG. 4 shows entry fields 16a, 16p, and 16q. The input data "Smith, Fred", "100", and "6.50", are input to the touch panel on areas that are larger than their respective entry fields. In response to the input data, entry fields 16a, 16q, and 16p are resized to accommodate the size of the input text (Specification, at page 12, lines 3-12).

The Examiner again relies upon the font resizing of Sachs et al. to reject this feature. Specifically, the Examiner states, "Sachs et al. discloses in fig. 3B, a touch-sensitive display screen comprises a resizing the entry field to be suitable for the input data's size whenever input data is input to the generated entry field (see the size of the font on text 110 is displayed [sic] and can then be enlarged or reduced [sic], see col. 6, lines 8-22)."¹¹ This statement by the Examiner clearly affirms that Sachs et al. discloses resizing the font of the text instead of resizing an entry field.

Further, Sachs et al. discloses a different condition for the resizing operation. Sachs et al. states "In this case, the 'change font' icon 122 may be selected so as to change the current font size to the next font size." (Sachs et al., column 6, lines 12-14). According to Sachs et al., resizing occurs not upon input of text data, but upon selection of the icon 122, which are two distinct operations.

The Examiner provides no further support for rejecting this claim limitation.

⁸ See Takada, at title and abstract.

⁹ See Sachs et al., at title and abstract.

¹⁰ See Office Action dated November 14, 2007, at pages 5-6.

Accordingly, Sachs et al. does not teach or suggest when the entry of the data into the virtual cell is completed, resizing the entry field to be suitable for the entry of the data's size, as recited by Claim 10. Takada does not cure the deficiencies of Sachs et al.

Since the combination of Takada and Sachs et al. does not teach or disclose the recitation of Claim 10 of the present application, when the entry of the data into the virtual cell is completed, resizing the entry field to be suitable for the entry of the data's size, Claim 10 cannot be rendered obvious over Takada in view of Sachs et al.

Based on at least the foregoing it is respectfully submitted that the rejection of Claim 10 under 35 U.S.C. §103(a) must be reversed.

2B. Independent Claim 10 is not rendered obvious by Takada in view of Sachs et al.

The Examiner has failed to show that each and every element of Claim 10, and in as complete detail as is contained therein, are taught in or suggested by the prior art. The Examiner has failed to make out a prima facie case for an obviousness rejection, and thus Claim 10 is allowable.

2C. Dependent Claims 11-13 and 15-16 are patentable over Takada in view of Sachs et al.

Without conceding the patentability per se of dependent Claims 11-13 and 15-16, this claim is likewise believed to be allowable by virtue of at least its dependence on Claim 10.

¹¹ See Office Action dated November 14, 2007, at pages 5-6.

CONCLUSION

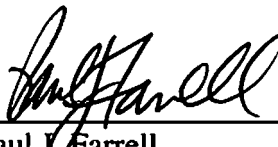
As the Examiner has failed to make out a prima facie case for any of the obviousness rejections, the rejections of Claims 1-8, 10-13, and 15-16 must be reversed.

It is well settled that in order for a rejection under 35 U.S.C. §103(a) to be appropriate, the claimed invention must be shown to be obvious in view of the prior art as a whole. A claim may be found to be obvious if it is first shown that all of the recitations of a claim are taught in the prior art or are suggested by the prior art. In re Royka, 490 F.2d 981, 985, 180 U.S.P.Q. 580, 583 (C.C.P.A. 1974), cited in M.P.E.P. §2143.03.

The Examiner has failed to show that all of the recitations of Claims 1-8, 10-13, and 15-16 are taught or suggested by Takada in view of Sachs et al. Accordingly, the Examiner has failed to make out a prima facie case for an obviousness rejection.

Therefore, the rejections of Claims 1-8, 10-13, and 15-16 must be reversed.

Dated: April 4, 2008

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CLAIMS APPENDIX

Claim 1. (Previously Presented) A pen input device comprising:

a touch screen panel for receiving a pen input from a user and displaying input data corresponding to the received pen input;

an entry field generating portion for generating at least one entry field based on a boundary line of an entry frame drawn by the user;

a controller for resizing the entry field to be suitable for the input data's size whenever input data is input to the generated entry field; and

a memory unit for storing recognition information related to the entry field and the input data.

Claim 2. (Original) The pen input device as set forth in claim 1, wherein the entry field generating portion generates the entry field by smoothing the boundary line of the drawn entry frame based on a previously stored entry frame shape.

Claim 3. (Original) The pen input device as set forth in claim 1, wherein the entry field includes a virtual cell with a size that is adjusted to be suitable for the size of the input data.

Claim 4. (Original) The pen input device as set forth in claim 3, wherein, when the input data is handwritten data, the controller detects a beginning point and an end point of strokes of the handwritten data, and, provides information of a finally modified size of the virtual cell obtained when the end point is detected in the entry field generating portion.

Claim 5. (Original) The pen input device as set forth in claim 4, wherein the entry field generating portion newly sets the entry field's size based on the information of the finally modified size of the virtual cell.

Claim 6. (Original) The pen input device as set forth in claim 4, wherein the controller recognizes the handwritten data of the virtual cell as one stroke group, and converts the recognized handwritten data to computer-recognizable data.

Claim 7. (Original) The pen input device as set forth in claim 1, wherein, in response to a user's request, the controller sets an inherent attribute of a virtual cell of the entry field.

Claim 8. (Original) The pen input device as set forth in claim 7, wherein the controller duplicates the entry field to generate a page-based database and enables the memory unit to store the page-based database.

Claim 9. (Original) The pen input device as set forth in claim 7, wherein the inherent attribute defines the entry field to be one of a fixed entry field in which the virtual cell's size and the input data cannot be modified by the user and a reserved entry field in which the virtual cell's size and the input data cannot be modified by the user, and defines a type of the entry data.

Claim 10. (Previously Presented) A pen input method comprising the steps of:

- (a) displaying an entry frame drawn by a user through a pen input on a touch screen panel;
- (b) detecting a boundary line of the entry frame, setting an entry field based on the detected boundary line, and generating a virtual cell corresponding to the entry field for entering data;
- (c) modifying the virtual cell's size in real time in response to entry of data into the virtual cell; and
- (d) when the entry of the data into the virtual cell is completed, resizing the entry field to be suitable for the entry of the data's size.

Claim 11. (Original) The pen input method as set forth in claim 10, wherein, in the step (b), the setting of the entry field is performed by smoothing the detected boundary line based on a previously stored entry frame shape.

Claim 12. (Original) The pen input method as set forth in claim 10, wherein, when the data entered into the virtual cell is handwritten data, the step (c) comprises the steps of:

- (c1) detecting a beginning point and an end point of the handwritten data;**
- (c2) modifying the virtual cell's size while displaying a trace of the handwritten data; and**
- (c3) storing information on the modified virtual cell's size during a period until the end point is detected.**

Claim 13. (Original) The pen input method as set forth in claim 10, further comprising the step of:

- (e) in response to a user's request, setting an inherent attribute of the virtual cell of the entry field.**

Claim 14. (Original) The pen input method as set forth in claim 13, wherein the inherent attribute defines the entry field to be one of a fixed entry field in which the virtual cell's size and the entered data cannot be modified by the user, and a reserved entry field in which the virtual cell's size, and the entered data cannot be modified by the user, and defines a type of the entry data.

Claim 15. (Original) The pen input method as set forth in claim 10, further comprising the steps of:

- (f) in response to a user's request, duplicating the entry field to generate a page-based database; and**
- (g) storing the generated page-based database in a memory.**

Claim 16. (Original) The pen input method as set forth in claim 10, further comprising the step of:

- (h) recognizing handwritten data entered into the virtual cell as one stroke group, and converting the recognized handwritten data to computer-recognizable data.**

EVIDENCE APPENDIX

There is no evidence submitted pursuant to 37 C.F.R. 1.130, 1.131, 1.132 or entered by the Examiner and relied upon by Appellant.

RELATED PROCEEDINGS APPENDIX

There are no known decisions rendered by a court or the Board in any proceeding identified pursuant to paragraph (c)(1)(ii) of 37 C.F.R. 41.37.